

In re: Asplin
Serial No.: 09/687,445

REMARKS

This Request for Continued Examination and Amendment follows the outstanding Official Action dated 10/06/04 and is intended as a complete and proper response thereto. In particular, the present paper is presented with the view of advancing prosecution of this application on its merits and hopefully placing this case in a clear condition for allowance.

In order to render this Amendment responsive, a Petition for Extension of Time to Respond Within the Third Month Pursuant to § 1.136(a) is submitted herewith in duplicate along with the requisite petition fee of \$510.00 commensurate with the applicant's small entity status as previously established.

Claims 12-21 remain in the application. These remaining claims are all method claims geared toward the current invention and have been amended in accordance with the examiner's office action and as such, reexamination and reconsideration of the application, as amended, is requested.

Applicant kindly thanks the examiner for the telephone interview of April 5, 2005 in which all claims in general were specifically discussed. In particular, method claims 12-21 were discussed as well as modification of the preamble in order to limit it to a method of lifting and leveling slabs by using compressed air to lift and sand to stabilize and hold the slabs. Further, the claims were also amended to more clearly indicate how the air pressure is used to momentarily lift and hold the slab so as to

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create a compressed air space between the slab and the ground allowing sand supplied with the compressed air to freely move in this area and fill any voids and lay a coat of sand along the ground such that the slab rests upon the well dried sand when it drops back down. There was also a discussion of how this process differs from the mud pumping process as shown in Flock and the apparatus for moving sand in golf course sand traps as shown in Lightle. No agreement was reached during the interview process as any further action would have to be based upon the amendments as presented.

The previously presented apparatus claims 7, 9, 10 and 11 have been cancelled from the application.

As previously presented, claims 12-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Flock in view of Lightle. These remaining claims have now been amended to clearly include a preamble indicating that the method for lifting and leveling a slab uses compressed air to lift and dried sand to stabilize and hold the slab in the desired position. Further, the claims have been amended to indicate how the lifting is performed by the compressed air which momentarily holds the slab at a height above the ground until the compressed air leaks out along the edges allowing the slab to drop back down. During this time, the spray of sand included with the compressed air is free to move about this compressed air pocket and generally fill any voids along the ground, level the ground or increase the height of the ground as necessary. As the air freely moves out around the sides of the slab, the slab is generally only raised momentarily and then drops back down to the ground. When on the

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ground, the sand is not free to move about under the slab and thus the slab must be once again raised through the use of compressed air allowing the placement of sand under the slab. This lifting and leveling may be repeated over several steps in order to bring the slab to a desired height.

The applicant previously argued that Flock does not disclose the use of air pressure to lift the concrete and that the subsequent movement of dried sand to fill the void as the concrete is lifting by the air pressure. It is believed that this is now clearly presented in the claims as amended. Although a flow of sand is provided with the air pressure, it is the air pressure that lifts the slab creating a pocket of compressed air between the slab and the ground called a "settle cavity". This language is now specifically included in the claims. Further, the claims also indicate how the sand is free to move around within this compressed air pocket during the moment while the slab is raised. Although the air and sand are provided at the same time, it is the air that does the lifting until it is allowed to escape around the edges of the slab and during the time it is lifted. The sand is then free to flow to other areas of the slab typically not accessible until the slab is lifted above the ground.

As stated above, it is believed that the new claim language clearly indicates this, thus differentiating it from Flock which uses the compressed plastic mud or granular material in order to lift the concrete or slab permanently as it is pushed in. Further, it was previously argued that the use of air in Flock is counterproductive to Flock's use. It is believed that this may

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be clear to the examiner in light of these new amendments as Flock uses a plastic non-compressible material in order to raise the concrete into place. This is clear from the claims in Flock, specifically page 2 column 2 indicating that a material is forcibly injected and this material should be "substantially incompressible" filing material.

The current invention as disclosed and now claimed uses air pressure, an extremely compressible gas, in order to temporarily lift the cement allowing the sand to fill into the proper locations. Further, it is believed that the amendment of the preamble to indicate how the lifting and slab leveling is performed limits the use of the prior art which the examiner may use in this case. As such, it is believed that it has been clearly shown how the use of air or air bubbles in Flock are counterproductive to the materials and thus Flock actually teaches away from using a highly compressible material such as gas or air to temporarily lift the slab. Flock actually teaches the use of a "substantially incompressible" filing material to lift.

Applicant recognizes that Lightle shows the use of air to move sand and that devices for mixing air and sand such as sand blasting device are known. However, the method claim as now amended clearly defines over these references. Further, it is believed that certain portions of the claims as presented clearly defined over the prior art. For example, supplying a compressed air bleed valve between the compressed air source and the sand outlet in order to let off excess air pressure is not shown by Flock. Rather, Flock shows a flap check valve 34 at the end of

tube 17. This check valve prevents withdrawal of the material during the upstroke. As such, this is not a pressure release valve but is rather a check valve to keep pressure located within or under the slab and to prevent the material placed under the slab under high pressure from flowing back out, whereas the relief valve as described in the application and claimed is to release pressure rather than a flap valve to hold material in place.

In any event, applicant believes that the modifications made to the remaining independent method claims clearly define over the prior art by showing how compressed air is used to lift the slab and create a compressed air gap between the slab and the ground under which the sand may freely move until the slab settles back down upon release of the compressed air or leaking out of the compressed air around the edges of the slab or through the slab and how these steps are repeated until the slab is brought to the desired level.

In light of the foregoing discussion of the applied art of record, the presentation of the amended schedule of claims and the indication as to how such claims are considered to clearly and patentably define over the references, it is believed that the patentable nature of the claims has been demonstrated.

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In view of the above remarks, reconsideration and allowance of the claims is kindly requested. Should any matters remain outstanding that may be handled over the phone the examiner is encouraged to call.

Respectfully Submitted,

Date: _____

4-6-05



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